

State of Utah

DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF AIR QUALITY

Michael O. Leavitt
Governor

Dianne R. Nielson, Ph.D.
Executive Director

Richard W. Sprott
Director

150 North 1950 West
P.O. Box 144820
Salt Lake City, Utah 84114-4820
(801) 536-4000 Voice
(801) 536-4099 Fax
(801) 536-4414 T.D.D.

Certified Mail

DAQC-016-2001

April 9, 2001

LeGrand Bitter
Wasatch Energy Systems
650 East Highway 193
Layton, Utah 84041-8647

Dear Mr. Bitter:

RE: **NOTICE OF VIOLATION AND ORDER TO COMPLY** - Utah Administrative Code (UAC) R307-401 and Condition 7 of Approval Order (AO) dated September 10, 1996, UAC R307-170-9(10) - Wasatch Energy Systems - Davis County

On December 22, 2000, the Division of Air Quality (DAQ) received a report of compliance testing of Units A and B performed on October 10-14, 2000. The test report states that at the time of testing, Unit A dioxin/furan emissions averaged 532 nanograms per dry standard cubic meter, adjusted to 7 percent oxygen (ng/dscm @ 7% O₂). Using the oxygen concentrations determined from the test grab samples, DAQ calculates that at the time of testing, Unit A dioxin/furan emissions averaged 555.9 ng/dscm @ 7% O₂. Condition 7 of the AO dated September 10, 1996 limits dioxin/furan emissions from Unit A to 360 ng/dscm @ 7% O₂.

Wasatch Energy Systems (WES) did not demonstrate that Unit A had been brought back into compliance with the dioxin/furan emission limit until a subsequent test was performed on January 18-22, 2001. The report for the January 18-22, 2001 test indicates that the average dioxin/furan emissions for Runs 1, 2, and 4 of the Unit A dioxin/furan test were 273.2 nanograms per dry standard cubic meter, adjusted to 7 percent oxygen (ng/dscm @ 7% O₂). Using the oxygen concentrations determined from the test grab samples, DAQ calculates that the average dioxin/furan emissions for Runs 1, 2, and 4 of the January 18-22, 2001 Unit A dioxin/furan test were 298.3 ng/dscm @ 7% O₂. Run 3 of the January 18-22, 2001 Unit A dioxin/furan test was not included in the dioxin/furan test results because two different meter boxes were used during that run.

For the period of October 1, 2000, through February 28, 2001, the DAQ has conducted a review of the reporting format used by WES to submit quarterly reports for all CEMS data. This review identified the following:

WES failed to provide a narrative description of 2,979 individual events of excess emissions during the period of January 1, 1999, through December 31, 2000. UAC R307-170-9(10) requires a narrative description for each event of excess emissions.

WES failed to operate either unit A or B in compliance with the CO emission limit (100 ppm_{dv} @ 7% O₂ 4 - hour block average of 1 - hour averages) for at least 95% of the annual operating hours as specified in condition 7 of the AO. The CO emission limit was exceeded for a total of 766 4 - hour block averaging periods during the period of January 1, 1999, through December 31, 2000. There were 374 of the 766 4 - hour block periods of excess CO emissions do not qualify as excusable malfunctions.

The enclosed **NOTICE OF VIOLATION AND ORDER TO COMPLY** is based on the data contained in the stack test report , the review of information submitted by WES during the period of October 1, 2000, through February 28, 2001, and the quarterly reports submitted for the period of January 1, 1999, through December 31, 2000. This **ORDER** is effective immediately. Compliance with the **ORDER** is mandatory and will not relieve the company of liability for any past violations. To request a formal administrative hearing, the procedures detailed in the paragraph entitled "Compliance, Opportunity for a Hearing" must be followed.

The **ORDER** requires Wasatch Energy Systems to submit written notification of its intent to comply, indicating how and when compliance will be achieved, to DAQ in writing on or before the 15th day after receipt of the **ORDER**. A meeting will then be arranged to discuss the violation, findings, and resolution. Questions regarding this matter may be directed to Richard W. Sprott at (801)536-4151.

WHEN RESPONDING, REFER TO THE DATE ON THIS LETTER.

Sincerely,

Richard W. Sprott, Executive Secretary
Utah Air Quality Board

RWS:HAB:sd

Enclosure: NOTICE OF VIOLATION AND ORDER TO COMPLY

cc: Department of Environmental Quality, Dianne R. Nielson
EPA Region VIII, Carol Smith
Davis County Health Department
Wasatch Energy Systems Administrative Control Board

THE UTAH AIR QUALITY BOARD

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In the Matter of	:	NOTICE OF VIOLATION
Wasatch Energy Systems	:	AND ORDER TO COMPLY
	:	No.2001012405
	:	

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This NOTICE OF VIOLATION AND ORDER TO COMPLY is issued by the UTAH AIR QUALITY BOARD (the Board) pursuant to the Utah Air Conservation Act (Act) Section 19-2-101, et seq., Utah Code Annotated 1953, as amended. The Executive Secretary is authorized to issue Notices of Violation pursuant to Section 19-2-110 of Utah Code Annotated. The Board has delegated to the Executive Secretary authority to issue ORDERS in accordance with Section 19-2-107(2)(g) of the Utah Code Annotated.

FINDINGS

1. Wasatch Energy Systems (WES) operates two municipal waste combustor units (Units A and B) located at 650 East Highway 193, Layton, Davis County, Utah. WES' offices are located at that same address.
2. On September 10, 1996, the Executive Secretary issued an Approval Order (AO) to WES in accordance with Utah Administrative Code (UAC) R307-401. Condition 7 of that AO limits dioxin/furan emissions from each combustor unit to 360 nanograms per dry standard cubic meter corrected to 7 percent oxygen (ng/dscm @ 7% O₂).
3. On December 22, 2000, the Executive Secretary received a report dated December 21, 2000, of compliance testing performed at WES on October 10-14, 2000. The report states that at the time of testing, dioxin/furan emissions from Unit A averaged 532 ng/dscm @ 7% O₂. The report further states that this reported dioxin/furan value was based on the oxygen concentrations reported by the facility's continuous emissions monitoring system, which was a deviation from the test protocol. In accordance with the test protocol, the Division of Air Quality, using the oxygen concentrations measured by grab sampling, calculates that at the time of testing, the dioxin/furan emissions from Unit A averaged 555.9 ng/dscm @ 7% O₂.
4. On February 28, 2001, the Executive Secretary received a report dated February 15, 2001, of compliance testing performed at WES on January 18-22, 2001. The report indicates that the average dioxin/furan emissions for Runs 1, 2, and 4 of the Unit A dioxin/furan test was 273.2 ng/dscm @ 7% O₂. Run 3 was not included in the average, because two different meter boxes were used during that run. The report states that this reported dioxin/furan value was based on the oxygen concentrations reported by the facility's continuous emissions

monitoring system, which was a deviation from the test protocol. In accordance with the test protocol, the Division of Air Quality, using the oxygen concentrations measured by grab sampling, calculates that at the time of testing, the average dioxin/furan emissions for Runs 1, 2, & 4 of the Unit A dioxin/furan test was 298.3 ng/dscm @ 7% O₂.

5. Condition 8 B of the AO dated September 10, 1996, requires WES to operate Continuous Emission Monitoring Systems (CEMS) on each flue of the bi-flue stack and monitor for Oxygen, Carbon Monoxide, Nitrogen Oxide and Sulfur Dioxide. This condition also requires WES to operate a Continuous Opacity Monitoring System (COMS) on both flues of the bi-flue stack.

6. Each source that operates a Continuous Monitoring System is required to comply with UAC R307-170, Continuous Emission Monitoring Program. UAC R307-170-9 specifies the requirements of the State Electronic Data Report that is submitted on a quarterly basis:

(10) Each source shall submit a narrative description explaining each event of monitor unavailability or excess emissions. Each description also shall be accompanied with reason codes and action codes that will link descriptions to events reported in the monitoring information and excess emission report.

7. During the period of January 1, 1999, through December 31, 2000, quarterly reports submitted by WES identified 2,979 events of excess emissions that did not contain narrative descriptions. Of the 2,979 events, 2,626 events consisted of excess opacity, 352 events consisted of excess carbon monoxide and 1 event consisted of excess sulfur dioxide.

8. Condition 7 of the AO dated September 10, 1996, states the following:

Emissions to the atmosphere from each discharge point of the bi-flue stack...shall not exceed the following rates and concentrations, all on a dry basis and corrected to 68° F, 14.7 psia and 7% oxygen when tested and at least 95 percent of the annual operating hours for all continuous emission monitoring systems (CEMS) monitored pollutants:

Carbon Monoxide (CO): 100 ppm_{dv} @ 7 % O₂ [4 hour block average of 1-hour averages].

These standards apply except during periods of startup, shutdown, or malfunction. Duration of startup, shutdown or malfunction periods are limited to three hours per occurrence.

9. Quarterly reports submitted by WES indicate the following:

- A. In 1999, WES reported a total of 337 four hour block exceedences of the CO emission limit for units A and B. 192 of these exceedences were caused by periods of startup, shutdown or malfunction and were exempted from the CO emission limit. 145 of these exceedences were not exempt from the CO emission limit.
- B. In 1999, Unit A operated in compliance with the CO emission limit for 89.5% of the annual operating hours. Unit B operated in compliance with the CO emission limit for 92.9% of the annual operating hours.
- C. In 2000, WES reported a total of 429 four hour block exceedences of the CO emission limit for units A and B. 200 of these exceedences were caused by periods of startup, shutdown or malfunction and were exempted from the CO emission limit. 229 of these exceedences were not exempt from the CO emission limit.
- D. In 2000, Unit A operated in compliance with the CO emission limit for 87.2% of the annual operating hours. Unit B operated in compliance with the CO emission limit for 91.4% of the annual operating hours.

VIOLATIONS

Based on the foregoing FINDINGS, WES is in violation of the following:

- 1. Condition 7 of the AO dated September 10, 1996, for dioxin/furan emissions from Unit A which exceeded the dioxin/furan emission limit.
- 2. UAC R307-170-9(10) for failing to provide a narrative description giving the reason for each of 2,979 excess emission events during the period of January 1, 1999 through December 31, 2000.
- 3. Condition 7 of the AO dated September 10, 1996, for exceeding the four hour block average CO emission limit 145 times in 1999 and 229 times in 2000.
- 4. Condition 7 of the AO dated September 10, 1996, for failing to operate units A and B in compliance with the CO emission limit for at least 95% of the annual operating hours during 1999 and 2000.

ORDER

Based on the foregoing FINDINGS AND VIOLATION, WES, pursuant to Section 19-2-107(2)(g) of the Utah Code Annotated, is hereby ORDERED TO:

1. Immediately initiate all actions necessary to achieve total compliance with all applicable provisions of the Act.
2. Notify this office in writing on or before the 15th day after receipt of this letter, of WES' intent to comply with this ORDER and indicate how compliance will be achieved.

COMPLIANCE, OPPORTUNITY FOR A HEARING

This ORDER is effective immediately and shall become final unless WES requests, in writing, a hearing within thirty (30) days after receipt of this Notice pursuant to Utah Code Annotated 19-2-110. Section 19-2-115 of the Utah Code Annotated provides that violators of the Utah Air Conservation Act and/or any ORDER issued thereunder may be subject to a civil penalty of up to \$10,000.00 per day for each violation.

Dated_____day of_____, 2001.

Richard W. Sprott, Executive Secretary
Utah Air Quality Board